

## ABSTRACT

In a motor control device according to the invention, upon velocity control of a motor, a superimposed signal generating unit 9 outputs a superimposed signal  $idh$  of a repetitive waveform, such as a triangular wave or a sine wave. A d-axis current command generating unit 10 adds the superimposed signal  $idh$  generated by the superimposed signal generating unit 9d to a d-axis current command  $idc^*0$  and outputs a d-axis current command  $idc^*$ . An axial misalignment detecting unit 11 (11a, 11b, 11c, and 11d) receives the d-axis current command  $idc^*$  and a q-axis current command  $iqc^*$  and outputs an axial misalignment angle estimation value  $\Delta\theta^\wedge$ . An axial misalignment correction unit 12 receives the axial misalignment angle estimation value  $\Delta\theta^\wedge$  and an actual detected position  $\theta_m$  and outputs a position after correction  $\theta_m'$ . Therefore, detection and correction can be performed in real time through calculation at a given timing during a normal operation.